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UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Report of the Ad Hoc Working Group on the Interrelationship between Investment and Technology Transfer on its second session

held at the Palais des Nations, Geneva,
from 13 to 17 December 1993

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Geneva

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INTRODUCTION

1. The Ad Hoc Working Group on the Interrelationship between Investment and Technology Transfer held its second session at the Palais des Nations, Geneva, from 13 to 17 December 1993.

2. In the course of its session, the Ad Hoc Working Group held two plenary and eight informal meetings.

Introductory statement

3. The Deputy to the Secretary-General of UNCTAD said that the dominant technological paradigm today was significantly different from that prevailing when UNCTAD had been created. Today's competitive environment required, at the firm level, the acquisition of new technological and organizational capabilities. Competitiveness of firms required the adoption of flexible production systems, higher levels of investment in R & D, the accumulation of high-level engineering and management skills, the establishment of efficient distribution networks, responsiveness to customers' needs, speed of delivery and reliability of after-sales services. For all these, technology was an essential element. Traditionally, international competitiveness had been regarded as being primarily a question of prices, labour costs and exchange rates. Within this mode of competition, technological rents accrued through the ability to reduce production costs. Accordingly, policy recommendations concentrated on wage costs, labour productivity and the adjustment of export prices through periodic devaluations. Today, competition was based upon different patterns of consumption and production and management concepts. Shifts in consumer preference had given rise to market demands focused on product specialization, higher quality, shorter product life cycles and quick turnover. These changes in turn had meant that competitiveness was no longer based just on low production costs but also on continuous improvements in process and product, organizational flexibility and quality, and access to market information.

4. Over the last two decades, perceptions of technology transfer and technological development had also evolved, and the sources, range and quality of technologies available to potential recipients had widened. More importantly, technology transfer was now seen primarily as a means of accomplishing the goal of developing domestic technological capability rather than as an end in itself. The notion of technological capability-building itself was now viewed not simply as a means of accumulating engineering and technical know-how but as a way of capturing the great variety of knowledge and skills needed to acquire, assimilate, utilize, modify, change and create technology. Achieving this objective would undoubtedly pose a challenge to developing countries which were currently in the process of restructuring their economies. In the new environment, attaining technological capability would require knowledge about technology suppliers, competitor firms, and user needs. It would also mean putting more emphasis on the acquisition of "soft" technologies and encouraging the development of multiple skills and life-time learning. In all these aspects, the role of the private sector would be crucial. The need to develop firm-level strategies and skills meant that private enterprises would be placed at the centre of technology transfer and technological capability-building processes. However, the role of government would also be vital in establishing support institutions dealing with R & D, information services, technology extension and standards. In practice, this entailed, inter alia, providing strong support to universities and other public and private research institutions but, more importantly, ensuring that strong linkages existed between them and the productive sector.

Chapter I

INTERRELATIONSHIP BETWEEN INVESTMENT AND TECHNOLOGY TRANSFER:
(a) INVESTMENT FLOWS, TRANSFER OF TECHNOLOGY AND COMPETITIVENESS;
(b) TECHNOLOGY CAPACITY-BUILDING IN DEVELOPING COUNTRIES, PARTICULARLY THE LEAST DEVELOPED COUNTRIES, AND IN COUNTRIES UNDERGOING THE PROCESS OF TRANSITION TO MARKET ECONOMY;
(c) TRANSFER AND DEVELOPMENT OF ENVIRONMENTALLY SOUND TECHNOLOGIES

(Agenda item 2)

5. For its consideration of this item, the Ad Hoc Working Group had before it the following documentation:

"Review of the work of the United Nations system and selected organizations dealing with investment-related technology issues: report by the UNCTAD secretariat" (TD/B/WG.5/6);

"Fostering technological dynamism: evolution of thought on technology capacity-building and competitiveness - summary of the review and analysis of the literature: report by the UNCTAD secretariat" (TD/B/WG.5/7);

"Fostering technological dynamism: evolution of thought on technology capacity-building and competitiveness: bibliographical references" (UNCTAD/ITD/TEC/12) (background document).

6. At the 1st plenary meeting of its second session, the Ad Hoc Working Group decided to pursue its consideration of this item in informal meetings.

7. At the closing plenary meeting, on 17 December 1993, the Chairman announced that the secretariat had prepared a summary of the informal proceedings of the Group's second session. The summary would be circulated to delegations, which would be requested to submit their comments by 15 January 1994, and the text would then be finalized by the secretariat for the Group's third session.

8. The Chairman further announced that, under his own responsibility, he had prepared a summing up of the Group's informal discussions, to be annexed to the report (for the text of the summing up, see annex I).

Chapter II

ORGANIZATIONAL MATTERS

A. Opening of the session

9. The second session of the Ad Hoc Working Group was opened on 13 December 1993 by the Chairman of the Group.

B. Bureau

10. The Bureau of the Ad Hoc Working Group at the Group's second session was as elected at its first session, namely:

Chairman:	Mr. Masafumi Nagao	(Japan)
Vice-Chairman:	Mr. Paul Pennell Buck	(United Kingdom of Great Britain and Northern Ireland)
	Mr. Syed Jamaluddin	(Bangladesh)
	Mr. Euvgeni Manakine	(Russian Federation)
	Mr. Msuya Mangachi	(United Republic of Tanzania)
	Mr. Soenaryo Danusaputro	(Indonesia)
Rapporteur:	Mr. Carlos Correa	(Argentina)

C. Adoption of the agenda and organization of work

(Agenda item 1)

11. At the 1st plenary meeting of its second session, the Ad Hoc Working Group adopted its provisional agenda (TD/B/WG.5/5), as follows:

1. Adoption of the agenda and organization of work

2. Interrelationship between investment and technology transfer:

   (a) Investment flows, transfer of technology and competitiveness;

   (b) Technological capacity-building in developing countries, particularly the least developed countries, and in countries undergoing the process of transition to market-economy;

   (c) Transfer and development of environmentally sound technologies

   (The discussion will be based on the presentation of preliminary or final country case studies and other relevant reports)

3. Provisional agenda for the final (third) session of the Working Group

4. Other business

5. Adoption of the report of the Working Group to the Trade and Development Board.

D. Provisional agenda for the third (final) session of the Working Group

(Agenda item 3)

12. At its closing plenary meeting, on 17 December 1993, the Ad Hoc Working Group approved the draft provisional agenda for its third (final) session (TD/B/WG.5/L.5), as orally amended (for the provisional agenda for the third session, see annex II).

13. The Ad Hoc Working Group further agreed that its third session should be held from 21 to 25 March 1994, as scheduled.

14. In response to a question by the representative of the European Community concerning the documentation for the third session, the representative of the UNCTAD secretariat said that the secretariat would be preparing: (a) the finalized version of the summary of discussions (see para. 7 above); (b) a short report on the secretariat's work relating to a compilation of legal material; (c) a draft for part one of the Group's final output (see annex I, paras. 10-12). The documentation should be available by early February 1994, though it would not be possible to respect the usual deadlines for the translated texts.

15. The Chairman said that part two of the final output would be prepared during the Group's third and final session. In that connection, the United States of America had already presented a preliminary draft (see annex I, para. 13, and TD/B/WG.5/CRP.1), and other delegations might do the same.

16. The representative of Sweden suggested that, in order to economize and to facilitate the attendance of experts, the Group's final session could be reduced in length to three days.

17. The Chairman said that it would be wiser to keep five days but with the intention of finishing early if at all possible.

E. Adoption of the report of the Working Group to the Trade and Development Board

(Agenda item 5)

18. At its closing plenary meeting, on 17 December 1993, the Ad Hoc Working Group adopted its draft report (TD/B/WG.5/L.4) and authorized the Rapporteur to complete the text taking into account the proceedings of the closing plenary.

Annex I

SUMMING UP BY THE CHAIRMAN

Discussions

1. The Working Group held two plenary and eight informal meetings during which the issues before it were discussed in depth and views exchanged in a frank and constructive atmosphere.

2. The informal discussions were opened with a keynote address by Professor Lynn Mytelka (Carleton University, Ottawa, and LAREA-CEREM, University of Paris X) on the theme of strategic partnering and its implications for developing countries. Professor Mytelka argued for the relevance and importance of strategic partnerships within and across developing countries as an important means for technological capacity-building and for raising competitiveness in these countries. She insisted on the need for institutional mechanisms that would support the development of networking at the national, regional and international levels supported by both the private and public sectors.

3. The Working Group also had an opportunity to hear the views of the private sector on foreign investment and technology transfer to developing countries and countries in transition. Mr. Samir Marrakchi (President and Director-General of the "Société de Participation et de Promotion des Investissements (SPPI)", Tunisia), Mr. Viorel Catarama (President and Director-General of "Elvilla International", Romania), and Mr. Joseph Brenner (Development Consultant, Du Pont de Nemours International, Switzerland), addressed the Group and participated in the general discussion, as well as in a panel discussion on technological capacity-building in developing countries.

4. The panel discussion was organized for the purpose of providing further insights on the issues being discussed. Mr. Samuel Wangwe (INTECH), Mr. Tom Ganiatsos (UNCTAD), and Mr. Jorge Katz (ECLAC) presented the results of research being carried out respectively in Africa, Asia and Latin America. The presentations by the experts were followed by a rich exchange of views on such diverse issues as: the need to distinguish between firms' and national policies and strategies; the role of infant industry protection and the importance of macroeconomic stability. A general observation which was also brought up during the discussion on the country case studies was that differences in levels of development or situations of countries called for different sets of considerations and different approaches towards capacity-building and competitiveness.

5. The meeting benefited from the presentation of 14 case studies submitted by the following countries: China (TD/B/WG.5/Misc.12), Nigeria (TD/B/WG.5/Misc.6), Switzerland (TD/B/WG.5/Misc.9), Philippines (TD/B/WG.5/Misc.17), Sri Lanka (TD/B/WG.5/Misc.3), Sweden (TD/B/WG.5/Misc.2), Netherlands (TD/B/WG.5/Misc.11), Romania (TD/B/WG.5/Misc.4), Turkey (TD/B/WG.5/Misc.13), Chile (TD/B/WG.5/Misc.8), Argentina (TD/B/WG.5/Misc.10), Bolivia (TD/B/WG.5/Misc.15), Venezuela (TD/B/WG.5/Misc.7 and Corr.1), and Republic of Korea (TD/B/WG.5/Misc.5). Preliminary findings were presented for the case study of Brazil. The final draft of this study will be submitted at the Working Group's third session. These elaborate and interesting presentations gave an account of the challenges and opportunities faced

by the countries concerned in promoting investment and technology capability-building. They stimulated discussion and promoted the sharing of experiences among countries at different stages of development and facing different situations. The discussion further contributed to the process of learning in the formulation and implementation of investment-related technology policies. It helped to identify areas where some progress had been made and where further efforts needed to be concentrated. It highlighted the efforts deployed in technology capacity-building and the role of technology transfer in this regard. Particular attention was given to capital goods imports and foreign direct investment as two important channels of technology transfer. Different countries pointed to reforms carried out and incentives adopted to liberalize their foreign investment regimes and attract investment and technology flows. Education was given particular attention at all levels in the process of capability-building. The institutional set-up required for human resource development and training was also emphasized. This, together with efforts to promote R & D and technological innovation, was viewed as instrumental in enhancing the competitiveness of nations and their enterprises.

6. The main different, though interrelated, areas on which emphasis was placed included the following:

- Role of education, including training in technology capacity-building;
- Role of the State;
- Human resource development and institution-building;
- Mechanisms of technology transfer;
- Promoting technology and investment flows;
- Policies to promote technological innovation;
- Intellectual property;
- Factors affecting competitiveness;
- Role of SMEs.

Oslo Workshop

7. The representative of Norway introduced the report of the Workshop on the Transfer and Development of Environmentally Sound Technologies, which had been organized jointly by the UNCTAD secretariat and the Government of Norway in Oslo from 13 to 15 October. The presentation was followed by a discussion during which the following points were brought up: the role played by the private sector in R & D and dissemination of ESTs; the impact of structural adjustment programmes on EST diffusion and the role of government intervention in this respect; the importance of training in capacity-building for ESTs, as for other technologies; the factors that affect their diffusion; and mechanisms for broader diffusion of ESTs in developing countries. The Working Group noted with appreciation the report on the Workshop, which will form part of the final report. Particular appreciation was extended to the Government of Norway.

Secretariat documentation

8. The Working Group reviewed the two documents submitted by the secretariat, namely "The Review of the work of the United Nations system and selected organizations dealing with investment-related technology issues" (TD/B/WG.5/6) and "Fostering technological dynamism: evolution of thought on

technology capacity-building and competitiveness" (TD/B/WG.5/7), including the bibliographical references to this review. The experts praised the secretariat for the high quality and comprehensiveness of the documentation provided. A number of specific comments concerning some re-drafting or inclusion of some additional points were made by some representatives. The secretariat assured the Group that these comments would be taken into account.

9. An extensive summary of the informal discussions prepared by the secretariat is being distributed. Experts and delegations have been invited to provide their comments to the secretariat, which will finalize the summary and submit it to the third session of the Working Group as the secretariat's contribution.

Final outcome

10. An initial exchange of views took place concerning the finalization of the work of the Ad Hoc Working Group. Paragraph 2 of the work programme provides the broad framework of what the Working Group is called upon to do. In that context, the Chairman presented to the Group the views of the Bureau on the final output of the work by the Ad Hoc Working Group, which will constitute one of the main topics of the third session of the Group, scheduled for March 1994. The final output would consist of two parts. Part one would deal with the main findings and part two with the conclusions.

11. The findings part would be based on: the country case studies presented to the Group; the results of the discussions within the Ad Hoc Working Group; the Oslo Workshop on the transfer and development of environmentally sound technologies; and the inputs provided by the UNCTAD secretariat. This part will be submitted as a draft report to the third session (the contents of the first part of the draft report have already been circulated in English).

12. Part two of the final output would contain the conclusions of the work undertaken, including any suggestions or recommendations. In the view of the Bureau, this part could focus on the characterization of the process and the identification of areas in which international cooperation should be strengthened.

13. With respect to the final outcome, the Group took note of a contribution made by the United States of America containing preliminary ideas for consideration by the Group at the third session to be held in March 1994 (TD/B/WG.5/CRP.1).

14. The Working Group gave particular consideration to the question of the participation of the enterprise sector in future meetings of UNCTAD dealing with technology matters. Particular reference was made to the desire that the final meeting of the Working Group should be attended also by representatives from the enterprise sector. They would be invited to address the Group on the main issues highlighted by the Working Group in its current deliberations. The wish was also expressed that it might be useful to gather representatives from the enterprise sector, including both big corporations and SMEs. A number of delegations indicated that efforts would be made to invite enterprise representatives for the next session of the Group. In this

respect, the Working Group invited the Secretary-General of UNCTAD, in addressing the invitations to Governments to the next session of the Group, to request the participation of the enterprise sector.

15. In reference to issue 2 of the work programme, the Working Group gave particular consideration to the needs of all developing countries, including the special needs of the least developed countries, and also of countries undergoing the process of transition to market economies.

16. Finally, the Group expressed appreciation to UNU/INTECH, ECLAC, and SAREC (Sweden) for providing documentation and research findings during the second session.

Annex II

PROVISIONAL AGENDA FOR THE THIRD SESSION
OF THE AD HOC WORKING GROUP

1. Adoption of the agenda and organization of work

2. Interrelationship between investment and technology transfer:

   (a) Investment flows, transfer of technology and competitiveness;

   (b) Technological capacity-building in developing countries, particularly the least developed countries, and in countries undergoing the process of transition to market-economy;

   (c) Transfer and development of environmentally sound technologies

   (The discussion will continue on the basis of country case studies and other relevant reports.)

3. Other business

4. Adoption of the final report of the Working Group to the Trade and Development Board.

Annex III

ATTENDANCE 1/

1. The following States members of UNCTAD, members of the Ad Hoc Working Group, were represented at the session:

Algeria
Argentina
Austria
Brazil
Chile
China
Colombia
Czech Republic
Democratic People's Republic of Korea
Denmark
Egypt
Finland
France
Germany
Greece
Hungary
Indonesia
Italy
Japan
Libyan Arab Jamahiriya
Mexico
Morocco
Myanmar
Netherlands
Nigeria
Norway
Philippines
Poland
Republic of Korea
Romania
Russian Federation
Saudi Arabia
Senegal
Slovakia
Spain
Sweden
Switzerland
Tunisia
Turkey
United Kingdom of Great Britain and Northern Ireland
United Republic of Tanzania
United States of America
Venezuela
Zimbabwe

2. The following other States members of UNCTAD, not members of the Ad Hoc Working Group, were represented as observers at the session:

Bolivia
Bulgaria
Ecuador
Ethiopia
India
Iran (Islamic Republic of)
Iraq
Ireland
Nepal
Panama
Portugal
Qatar
Sri Lanka
Thailand
Viet Nam

3. The Economic Commission for Europe, Economic and Social Commission for Asia and the Pacific were represented at the session.

The International Trade Centre UNCTAD/GATT was also represented.

1/ For the list of participants, see TD/B/WG.5/INF.2.

4. The following specialized and related agencies were represented at the session:

International Labour Organisation
United Nations Educational, Scientific and Cultural Organization
World Health Organization
International Monetary Fund
United Nations Industrial Development Organization

The General Agreement on Tariffs and Trade was also represented.

5. The following intergovernmental organizations were represented at the session:

European Community
International Centre for Public Enterprises in Developing Countries
International Organization for Migration

6. The following non-governmental organizations were represented at the session:

General Category

International Federation of Business and Professional Women
International Organization for Standardization
World Assembly of Small and Medium Enterprises
World Federation of United Nations Associations

Special Category

World Association of Industrial and Technological Research Organizations

7. The following panellists participated in the session:

Professor Lynn Mytelka, Keynote Speaker, Carleton University, Ottawa, Canada, LAREA-CEREM, University of Paris X

Mr. Samir Marrakchi, President-Director General, Societé de Participation et de Promotion des Investissements (SPPI), Tunis, Tunisia

Mr. Viorel Catarama, President-Director General, ELVILLA INTERNATIONAL, Bucharest, Romania

Mr. Joseph Brenner, Development Consultant, Du Pont de Nemours International, Geneva, Switzerland

Professor Samuel Wangwe, University of Dar es Salaam, Tanzania Institute for New Technologies (INTECH - UNU)

Mr. Thomas Ganiatsos, Technology Programme, UNCTAD, Geneva, Switzerland

Mr. Jorge Katz, Regional Adviser on Industrial and Technological Development, ECLAC, Santiago, Chile

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